OPHTHALMOLOGY.

UNDER THE CHARGE OF

EDWARD JACKSON, A.M., M.D.,
OF DENVER,

AND

T. B. SCHNEIDEMAN, A.M., M.D.,
PROFESSOR OF DISEASES OF THE EYE IN THE PHILADELPHIA POLYCLINIC.

Sudden Changes of Refraction in Diabetes.—G. SOURDILLE (Nantes) reports the case of a man, aged fifty-three, who had not used glasses until fifty-one, who was passing 187 grammes of sugar in the twenty-four hours. He came complaining of the sudden impairment of sight, which in four days had fallen from normal to one-sixth. Convex lenses of 2 D. restored full vision, and 3 D. added to these enabled him to read the finest print. The ophthalmoscopic appearances were normal, but the tension of the eyeball was slightly diminished. Eighteen days later, the sugar having disappeared from the urine, the patient complained he could no longer see with his glasses. He had full vision without them, and could read the finest print with + 2 D. His hyperopia had entirely disappeared, and the tension of the eyeball was normal.—*La Clinique Ophthalmologique*, May 25, 1900.

[Similar cases have been reported by Horner, Risley, and Doyne. The most probable explanation for them, offered by Horner, and which Sourdille is disposed to accept, is that the removal of water from the vitreous humor by the sugar-laden fluids of the body causes an actual shrinkage of the eyeball and consequent axial hyperopia.—ED.]

Operations for Entropion and Trachiasis.—H. HERBERT (Bombay) reports upon a large experience with these operations in India.

Generally speaking, of late, division of the tarsus from the conjunctival surface has been practised where tarsal deformity was slight or absent, and removal of a horizontal wedge of tissue from the anterior surface was reserved for the more definitely deformed tarsi.

In division of the tarsus the lid-margin was bent forward over a small roll of plaster by sutures firmly embedded in the tarsal margin below and in the skin above; or a more decided bending forward was effected over a pad of wet lint by sutures passing from lid-margin to eyebrow.

In the removal of a horizontal wedge of tarsus and overlying muscle through a skin incision and the application of specially devised sutures, the position of the wedge is important. It should be as near the free margin as possible, *i. e.*, immediately above the roots of the eyelashes. Thus there is a narrow strip of tarsus left below and a comparatively broad plate above, so that, when the anterior surfaces of the two are drawn together, any displacement which may occur will be in the more readily moved and more readily disease to man, and that the most common of the several species will not bite man at all. Certain it is at least that they would not bite him, for he confined specimens on various parts of his body under small watch glasses kept in place for twenty-four to forty-eight hours, and received not a single bite, although the kind that infests man bites him very freely. Possibly, however, some peculiarity of the skin secretions may be the explanation of their refusal to bite. Thus LOIR (*Revue Scientifique*, March 31, 1900, p. 395), being struck with the immunity enjoyed by oil carriers in past epidemics, conceived that this was due to the oil with which their persons and clothing are drenched. He made a number of experiments to ascertain if fleas would invade the fur of a rat soaked in oil, and found that they would not. He took a rat which was swarming with fleas, killed it, and placed its body in a cage in which were confined two other rats, one with normal skin and the other well oiled. When the dead body became cold all the fleas left it and went to the rat with the dry skin, not one attaching itself to the other. Loir concluded that the fleas' aversion for oil might be the explanation of the immunity noticed.

While authorities are not unanimous on the question of the importance of rats in the dissemination of plague, the subject is receiving most serious attention, and in many places a war of extermination has been inaugurated. In Hamburg, for example, an order was issued in the autumn to the police and harbor police to pay five pfennigs for each dead rat delivered before February 10 of the present year. At Aden the reward is a cent apiece for all killed within the limits of the town. At Paris the public authorities have been much stirred up for some years by the rat nuisance, and now, in view of the possibility of invasion by the disease, are especially desirous of preventing new importations and killing off those already on the ground. When the diggers for the Exposition began work some of the neighboring streets, according to *Gesundheit*, No. 4, 1900, were so extensively invaded by rats that the residents dared not leave a child in a yard or garden unattended. The markets swarmed with them, and at night the thickest meat chests were gnawed through. Cats were found of no use against them, since they are so accustomed to being fed and cared for that mice afford them merely a simple means of amusement, and rats are avoided. Where large numbers of them have been placed in the markets it has been observed that at night they affiliate with the rats in a friendly way, and make common cause against the provisions. Poison proved more effective, but only for a time, since rats become wary. Traps are useful, but not adapted to extermination on a large scale, and, moreover, rats soon learn wisdom by experience, and avoid them. Some varieties of dogs are most energetic rat hunters, among them the bull terrier, fox terrier and rat terrier. At the police headquarters four of the latter were used with great effect and were active both day and night.

The problem of exterminating rats by means of bacterial agencies has been studied by J. DANYSZ (*Revue d'Hygiene* and *Annales de l'Institut Pasteur*, April, 1900) with some success. He employed a cocco-bacillus which resembles the bacillus of LOEFFLER (B. typhi murium), which is pathogenic for mice. Danysz isolated his organism from an epidemic among field mice, and found from the beginning that it was slightly pathogenic for gray rats, that is, out of ten specimens fed with a culture of it two or three would die, others